

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Fig. 3. This sheet, which includes Figs. 2-4, replace the original sheet including Figs. 2-4. In Figure 3, the correction changes reference number 46 to reference number 16 to indicate the tank 16.

Attachment: Replacement Sheet
 Annotated Sheet Showing Changes

R E M A R K S

Claims 1-15 are pending. Claims 2 and 15 are withdrawn. Accordingly, claims 1 and 3-15 are at issue.

The specification has been amended to correct the recitation of the "cavity 32" to the "cavity 48". Accordingly the objection to the disclosure should be withdrawn.

A replacement sheet has been submitted herewith and has been amended to change the reference character "46" to "16" to indicate the tank in Fig. 3. Accordingly, the objection to the drawings should be withdrawn.

Claims 3-4, 6-7, 9-10, 12 and 14, indicated to be allowable if amended to independent form, have not been so amended because, as discussed below, it is respectfully believed that the base claims are allowable.

Claims 1, 5, 8, 11 and 13 stand rejected as unpatentable over Kocher 2,134,719, Brogan 3,923,323, or Turner et al 4,146,254 in view of Dalo et al 4,945,983, Ryan et al 5,062,476 or Ando 5,105,877. This rejection is traversed.

In Applicants' prior response filed October 26, 2004, Applicants argued that the proposed combinations in the rejection were improper. These arguments are incorporated herein by reference. These arguments included the following:

The attempted combination of round tube couplings with flattened heat exchanger tubes is improper because there is no motivation or suggestion as to the desirability of modifying the round couplings by substituting the flattened

heat exchanger tubes. In fact, the secondary references teach away from their use in the primary references. Specifically, the secondary references all concern flattened tubes that are brazed to a header. The primary references all disclose removable round tubes which by their very nature cannot be brazed because they are removable. . . . The Office Action asserts that the secondary references teach that round tubes and flat tubes are interchangeable, but, at best, this can only be a teaching that they are interchangeable in heat exchangers and particularly those of a brazed construction. The secondary references do not and cannot suggest anything with respect to the round tube couplings of the primary references. Thus, the Office Action has failed to establish a *prima facie* case of obviousness and the rejection should be withdrawn.

Further, one skilled in the art would not consider combining the structure of the primary references with the structure of the secondary references. The secondary references all teach brazed constructions while the primary references all teach removable couplings and therefore, one skilled in the art would not consider the secondary references because of their permanent brazed construction.

In response to these arguments, the present Office Action states that:

Applicants' arguments are not commensurate in scope with the claims. The fact that the primary references of Kocher, Brogan or Turner et al disclose removability by compression fittings is of no consequence, since the instant claims do not preclude this feature.

This statement in the Office Action misses the point of Applicants' arguments. Applicants are not arguing about the scope of the rejected claims. Rather, Applicants are arguing whether or not there is a suggestion or motivation to combine the references as proposed in the rejection. This suggestion, required to establish a

prima facie case of obviousness under 35 U.S.C. §103, has nothing to do with the scope of the claims being rejected. Rather, it has to do with whether or not one skilled in the art looking at the prior art references would be motivated to make a modification because there is a suggestion that the modification would be desirable. In this case, Applicants have argued that there is no such motivation because the primary references are for removable type connections, whereas the secondary references:

- (1) at best teach that it is desirable to replace flattened tubes and round tubes in a brazed heat exchanger construction, and teach nothing with respect to a removable coupling such as is shown in the primary references; and
- (2) there is no teaching or suggestion that it would be desirable to substitute the flattened tubes of a brazed construction (Applicants are here arguing about the structure shown in the references, not structure recited in Applicants' claims) for the round tubes of the removable fluid connections of the primary references. Absent a suggestion that it would be desirable to replace flattened tubes for the round tubes of a removable coupling such as shown in the primary references, a *prima facie* case has not been established.

To state this in other terms, while Applicants realize that the proposed combination is trying to arrive at the claimed invention, the determination of whether or not there is a suggestion for the desirability of the modification of two prior art references has nothing to do with the scope of the rejected claims. In this case, there is nothing in the prior art to support an assertion that one skilled in the art would have a motivation to combine the flattened tube/brazed heat exchanger header constructions of the secondary references for the round tube/removable connections of the primary references. For this reason, it is respectfully submitted that the rejection is improper.

Additionally, in response to Applicants' prior arguments, the present Office Action also asserts that:

In this case, the secondary references of Dalo et al, Ryan et al or Ando teach circular tubes and flattened tubes are obvious alternatives to one another. There is no novelty in employing a known tube cross-section with another known tube cross-section, especially when the prior art explicitly discloses the obvious substitutions.

There is nothing in any of the prior art references that suggest that circular tubes and flattened tubes are "obvious alternatives of one another" for use in the removable connections of the primary references. Again, absent such a suggestion, the rejections are improper. At best, the secondary references teach only that circular tubes and flattened tubes are obvious alternatives of one another in

the context of a brazed header construction for a heat exchanger. They teach nothing with respect to the round tube/removable connections of the primary references.

It was also argued in the prior response that:

Additionally, if the secondary references were combined with the primary references, the primary references would be unsuitable for their intended purpose. Specifically, the primary references disclose couplers that allow the round tubes to be disassembled/removed, whereas the secondary references all, at best, teach that round and flat tubes can be interchanged in a brazed construction. Thus, even if the primary references are modified by the teachings of the secondary references, the flat tubes would have to be brazed to the couplers to accommodate the flat tubes of the secondary references. If the flat tubes were brazed [t]o the couplers, the structure could not be disassembled.

Again, there has not been a single reference cited in the rejections that teaches that flat tubes are an obvious alternative or obvious substitute for round tubes in a removable, compression type coupling such as disclosed in each of the primary references. Absent such a teaching, the rejections fail to establish a *prima facie* case of obviousness. At best, the secondary references teach the desirability with respect to brazed connections, which if used in the primary references would render the primary references unsuitable for their intended purpose and completely change the principle of operation of each of the primary references because a brazed connection as taught by the secondary references would not allow for a removable

connection, nor would it allow for the compression type of sealing arrangement. This is not allowed in making a rejection under §103.

In view of the foregoing, Applicants respectfully request reconsideration of the objections to the drawings, claims and specification, and the rejections of the claims.

Respectfully submitted,

WOOD, PHILLIPS, KATZ,
CLARK & MORTIMER

By



Jeffery N. Fairchild
Reg. No. 37,825

June 7, 2005

500 West Madison Street
Suite 3800
Chicago, IL 60661-2511
(312)876-1800



Fig. 2

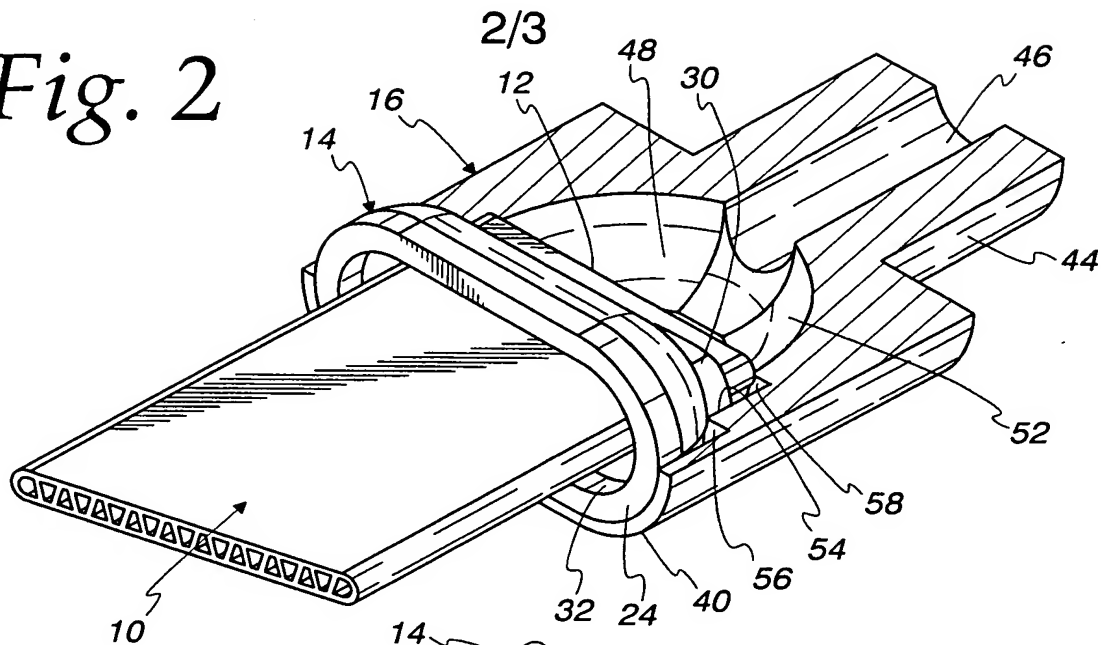


Fig. 3

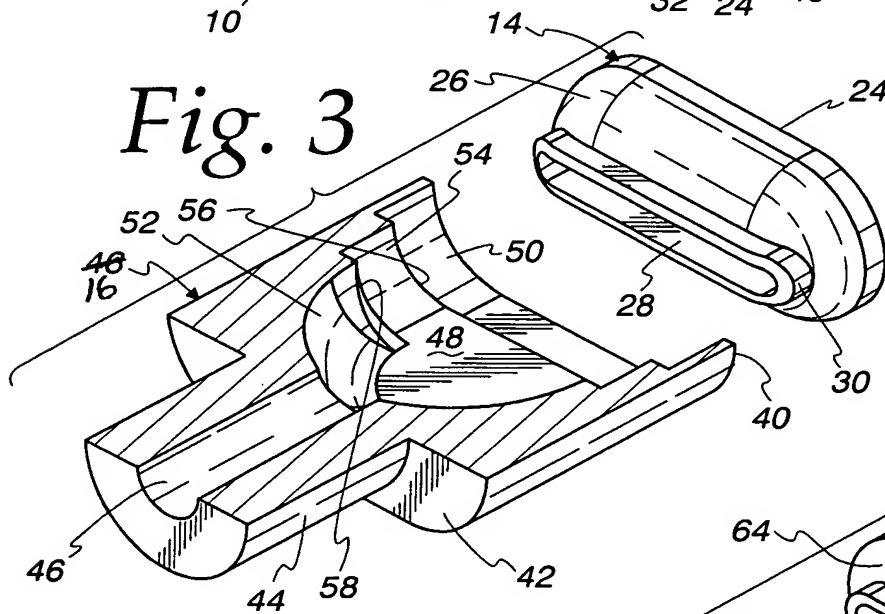


Fig. 4

